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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/511,158

10/14/2004

Toshiyuki Hanazawa

0925-0215PUS1

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EXAMINER

ARMSTRONG, ANGELA A

ART UNIT

PAPER NUMBER

2626

NOTIFICATION DATE

DELIVERY MODE

10/06/2008

ELECTRONIC

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

mailroom@bskb.com

Office Action Summary	Application No. 10/511,158	Applicant(s) HANAZAWA, TOSHIYUKI	
	Examiner ANGELA A. ARMSTRONG	Art Unit 2626	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 14 October 2004.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-14 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-14 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date <u>10/14/04</u> . | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Information Disclosure Statement

1. The information disclosure statement filed October 14, 2004, fails to comply with 37 CFR 1.98(a)(2), which requires a legible copy of each cited foreign patent document; each non-patent literature publication or that portion which caused it to be listed; and all other information or that portion which caused it to be listed. It has been placed in the application file, but the information referred to therein has not been considered.

Claim Rejections - 35 USC § 102

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

3. Claims 1-2, 5-9, and 12-14 are rejected under 35 U.S.C. 102(b) as being anticipated by Nitta (US Patent No. 4,881,266).

4. Nitta discloses a speech recognition system (providing support for methods and apparatus as shown in Figure 3A), in which start and end points of a word or speech interval are determined for searching a sound power level to obtain speech boundary candidates and for determining likelihoods of speech or word intervals on the basis of the boundary candidates. Regarding claims 1 and 8, Nitta discloses carrying out acoustic analysis of an input speech signal, and of outputting power in correspondence with the input signal (Figure 3 and 4; col. 4, lines 35-51; col. 6, lines 15-18); start/finish point range determining for detecting, as hill

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segments, segments in which the power continuously surpasses a predefined threshold value, with the hill segment where the power is largest considered to be the greatest hill segment (P_{max}), of assuming that a start-point range exists prior to the point at which the greatest hill segment goes below the threshold value and assuming that a finish-point range exists following the point at which the greatest hill segment goes above the threshold value (col. 6, line 28 to col. 11, line 23), and of outputting combinations of start-point ranges and finish-point ranges; and an identification step of performing pattern matching between reference patterns and patterns defined by the combinations of the start-point ranges and the finish-point ranges (Figure 3, pattern match detector 3A; col. 7, line 66 to col. 8, line 39).

5. Regarding claims 2 and 9, Nitta discloses a plurality of combinations of the start-point ranges and the finish-point ranges are outputted, and pattern matching is performed between the reference patterns and each of the patterns defined by all the combinations of the start-point ranges and the finish-point ranges (Figures 6A, 6B, 7A, 7C; col. 7, lines 9-44).

6. Regarding claims 5 and 12, Nitta discloses the start-point range is assumed to exist in a hill segment prior to the greatest hill segment, near the point where the threshold value is surpassed, and the finish-point range is assumed to exist in a hill segment following the greatest hill segment, near the point where the threshold value is not surpassed (col. 6, line 67 to col. 11, line 23).

7. Regarding claims 6 and 13, Nitta discloses the zone width in which the start-point range is assumed to exist and a zone width in which the finish-point range is assumed to exist are different for each hill segment (col. 11, lines 20-23).

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8. Regarding claims 7 and 14, Nitta discloses the power is outputted by frames, and in the start/finish point range determining step, a frame in which the power goes below the threshold value is considered to be the point at which the threshold value is gone below, and a frame in which the power surpasses the threshold value is considered to be the point at which the threshold value is surpassed (col. 6, line 67 to col. 11, lines 23).

Claim Rejections - 35 USC § 103

9. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

10. Claims 3-4 and 10-11 are rejected under 35 U.S.C. 103(a) as being unpatentable over Nitta in view of Miki (US Patent No. 5,202,926).

11. Regarding claims 3-4 and 10-11, Nitta does not implement power accumulation or summing of power values in the speech recognition process. Miki discloses a method for improving phoneme discrimination which analyzes dynamic information on the voice, power variations of the voice as a power-change pattern and spectrum parameter variations of the voice as a time spectrum parameter which implements summed power values (col. 5, lines 18-30) so as to detect power changes. Miki specifically teaches the methods aids in achieving more efficient and higher discrimination (col. 3, lines 37-38). Therefore, it would have been obvious to modify the speech recognition system of Nitta to implement summed power values in detecting power changes as taught by Miki, for the purpose of achieving more efficient and improved recognition.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to ANGELA A. ARMSTRONG whose telephone number is (571)272-7598. The examiner can normally be reached on Monday-Thursday 11:30-8:00 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Patrick N. Edouard can be reached on 571-272-7603. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Angela A Armstrong/
Primary Examiner, Art Unit 2626